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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/690,801	10/22/2003	Stuart S. Goldstein	P20021095 (US2)	5620

7590 07/14/2006

ExxonMobil Research and Engineering Company
 P.O. Box 900
 Annandale, NJ 08801-0900

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DATE MAILED: 07/14/2006

EXAMINER

SINGH, PREM C

ART UNIT

PAPER NUMBER

1764

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TLL

Response due September 14, 2006

Notice of Appeal due October 14, 2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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BY: *fxmk*

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Office Action Summary

Application No.

10/690,801

Applicant(s)

GOLDSTEIN ET AL.

Examiner

Prem C. Singh

Art Unit

1764

- The MAILING DATE of this communication appears on the cover sheet with the correspondence address -

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.

- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 June 2006.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6-8 and 10-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6-8 and 10-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 06/15/06
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Response to Amendment

Objection to claim 6 is withdrawn.

Amendment to claims 1, 6, 7, 8, 18, 19, and 20 and cancellation of claims 5 and 9 is noted.

Claim 10 is objected to because it depends on the cancelled claim 9.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-4, 6-8, and 10-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Golem et al. ("Conversion of Fixed-Bed Reformers to UOP CCR Platforming Technology") in view of Defresne et al. (US 5,854,162).

The Golem reference discloses a process in which a fixed-bed catalytic reformer unit is revamped so that at least one of the fixed-bed reactors is converted to a moving-bed reactor. All fixed-bed reactors may be converted to moving bed reactors. The moving bed reactor requires catalyst feeding and recovery facilities. A catalyst regenerator is also added to the unit. By performing this revamping, the resulting product from the reactor has improved quality and yield as compared to the product from the fixed-bed unit. The revamped unit is operated at lower pressures (i.e., 100 psi vs. 300 psi or 690 kPa vs. 2068 kPa). The catalyst used in the process contains platinum on a support. The catalyst is believed to be the same as claimed. The revamp

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in the manner disclosed by Golem is believed to result in a unit that is operated as claimed. See the entire document, especially pages 2, 5, 6, 7, 8, 10, and figure 9.

The Golem reference does not disclose a catalyst regeneration facility that is not integrated with the reactor from which the catalyst is removed.

The Dufresne reference discloses a reforming process in which the catalyst is regenerated offsite. See column 3, lines 31-44 and column 4, lines 16-37.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of the Golem reference by using an offsite regenerator as suggested by Dufresne because this would allow better control of the two principle regeneration steps.

Regarding the pressure conditions, the revamping as disclosed by Golem results in lower pressures used in the process. The actual pressures used would be based on the desired composition of the product and one having ordinary skill in the art would adjust such pressures accordingly.

Response to Arguments

The Applicant argues, "The two full conversion options described by Golem, of course, entail "conversion" of the fixed bed reactors to moving bed reactors, *but with the addition of a full size integrated regenerator* so that the claim requirement of the catalyst

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being transferred to a non-integrated regeneration facility (claims 1, 18) is not met; neither is the claim 20 requirement of using a shared regenerator.

The Applicant's argument is not persuasive because Figures 9-11 of Golem clearly show regenerator unit separate from the reactor train. This regenerator can be operated as a non-integrated regeneration facility or as a shared regenerator.

The Applicant argues that there is no suggestion in Dufresne that the catalyst should be transferred during normal continuous operation to a non-integrated regeneration facility, as required in claims 1 and 18.

The Applicant's argument is not persuasive because Dufresne discloses, " The regeneration process of this invention is carried out offsite, i.e., carried out outside a hydrocarbon treatment unit, preferably a catalytic reforming unit, and more generally away from the refinery site. The catalyst is removed from the reaction zone in the refinery then regenerated before its return to these zones." (Column 4, lines 32-37).

The Applicant argues, "Claims 8 and 19, as amended, specify that the modified unit is operated at a pressure within the range of 1035 to 22620 kPag (150 to 380 psig) and at a value which is lower than that of the fixed bed reactor before conversion. Claim 11 also specifies a reduced pressure relative to the regime prior to conversion. This mode of conversion and operation is neither described nor suggested by Dufresne nor Golem nor by a combination of the two."

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The Applicant's argument is not persuasive because Golem specifies an average reactor pressure of 265 psig (Page 9, last paragraph) and the reactor pressure in the Hybrid CCR conversion = 171 psig (Page 12, Case 2 Table).

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prem C. Singh whose telephone number is 571-272-6381. The examiner can normally be reached on MF 6:30 AM-3:00 PM.

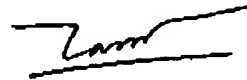
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

ps/070606



EMRE FORM - 1449

Sheet 1 of 2

**INFORMATION
DISCLOSURE STATEMENT**

(Use several sheets if necessary)

U. S. PATENT DOCUMENTS

Examiner Initial *	Document Number	Date	Name	Class	Sub-Class	Filing Date
PS	AA 5 1 9 0 6 3 8	3/2/93	George A. Swan	208	65	12/9/91
PS	AB 5 1 9 6 1 1 0	3/23/93	Gerrit S. Swart	208	65	12/9/91
PS	AC 5 2 1 1 8 3 8	5/18/93	David W. Staube	208	65	12/9/91
PS	AD 5 2 2 1 4 6 3	6/22/93	Paul W. Kaminski	208	65	12/9/91
PS	AE 5 3 5 4 4 5 1	10/11/94	Stuart S. Goldstein	208	65	12/9/91
PS	AF 5 3 6 8 7 2 0	11/29/94	John F. Dolan	208	65	4/13/92
PS	AG 5 4 1 7 8 4 3	5/23/95	Gerrit S. Swart	208	65	5/18/94
PS	AH 5 1 9 0 6 3 9	3/2/93	Gerrit S. Swart	208	65	12/9/91
PS	AI 4 4 9 8 9 7 3	2/12/85	John G. Sikonia	208	63	6/17/83
PS	AJ 5 8 5 4 1 6 2	12/29/98	Pierre Dufresne	502	45	10/14/97

FOREIGN PATENT DOCUMENTS

Document Number	Publication Date	Country	Class	Sub-Class	Translation Yes No
PS AK 0 6 3 8 1 1 5	6/11/97	Europe	C10G 35	04	X
PS AL 2 0 0 2 2 5 5	2/21/79	Great Britain	B01J8/00	B1F	X
AM					

OTHER DISCLOSURES (Include Author, Title, Date, Pertinent Pages, Place of Publication, etc.)

PS AN	Richard C. Kunzleman et al., "Off-Site Regeneration of Refining Catalysts" (undated), NPRA AM-80-51, pp. 1-8.
PS AD	NPRA Paper No. AM-89-47 "Conversion of Fixed Bed Reformers to UOP CCR Platforming Technology" (undated).
PS AP	Jeffrey L. Gendler et al., "IFP Solutions for Revamping Catalytic Reforming Units" (17-19 March 1996), NPRA Paper No. AM-96-50, pp. 1-13.

Examiner: *PCSEH* Date Considered: *07-06-06*

* Examiner: Initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and NOT considered. Include copy of this form with next communication to applicant(s).



27810

PATENT TRADEMARK OFFICE

PTO/SB/17 (01-08)

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Fees pursuant to the Consolidated Appropriations Act, 2005 (H.R. 4818).

FEE TRANSMITTAL
For FY 2006☐ Applicant claims small entity status. See 37 CFR 1.27**TOTAL AMOUNT OF PAYMENT** (\$) 970.00**Complete if Known**

Application Number 10/690,801
 Filing Date 22 October 2003
 First Named Inventor Stuart S. Goldstein
 Examiner Name Prem C. Singh
 Art Unit 1764
 Attorney Docket No. P2002J095-US2

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AUG 02 2006

METHOD OF PAYMENT (check all that apply)☐ Check ☐ Credit Card ☐ Money Order ☐ None ☐ Other (please identify):☒ Deposit Account Deposit Account Number: 05-1330 Deposit Account Name: ExxonMobil Research & Eng

For the above-identified deposit account, the Director is hereby authorized to: (check all that apply)

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FEE CALCULATION (All the fees below are due upon filing or may be subject to a surcharge.)**1. BASIC FILING, SEARCH, AND EXAMINATION FEES**

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

2. EXCESS CLAIM FEES**Fee Description**

Each claim over 20 (including Reissues)

Fee (\$)

Small Entity Fee (\$)

Each independent claim over 3 (including Reissues)

50

200

Multiple dependent claims

360

180

Total Claims **Extra Claims** **Fee (\$)** **Fee Paid (\$)**

- 20 or HP = x =

HP = highest number of total claims paid for, if greater than 20.

Indep. Claims **Extra Claims** **Fee (\$)** **Fee Paid (\$)**

- 3 or HP = x =

HP = highest number of independent claims paid for, if greater than 3.

3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper (excluding electronically filed sequence or computer listings under 37 CFR 1.52(e)), the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets **Extra Sheets** **Number of each additional 50 or fraction thereof** **Fee (\$)** **Fee Paid (\$)**

- 100 = / 50 = (round up to a whole number) x =

4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount)

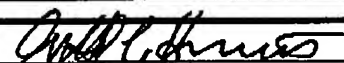
Fees Paid (\$)

Other (e.g., late filing surcharge): JDS and RCE IS \$180.00 and \$780.00

\$970.00

SUBMITTED BY

Signature

Registration No. 38,158
(Attorney/Agent)

Telephone 703-846-3207

Name (Print/Type) Gerald L. Harris

Date August 2, 2006

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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PTO/SB/21 (09-04)

Approved for use through 07/31/2008. OMB 0851-0031

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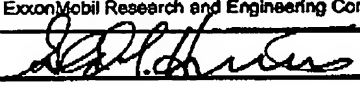
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TRANSMITTAL FORM <small>(to be used for all correspondence after initial filing)</small>	Application Number	10/680,801	
	Filing Date	October 22, 2008	
	First Named Inventor	Stuart S. Goldstein	
	Art Unit	1784	
	Examiner Name	Prem C. Singh	
Total Number of Pages in This Submission	30	Attorney Docket Number	P2002J095-US2

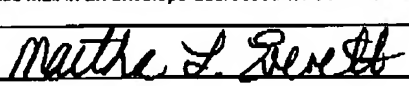
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Remarks _____		

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm Name	ExxonMobil Research and Engineering Company		
Signature			
Printed name	Gerald L. Harris		
Date	August 2, 2008	Reg. No.	36,158

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Signature			
Typed or printed name	Martha L. Everett	Date	August 2, 2008

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